## [000211] ABSTRACT OF THE DISCLOSURE

2	[000212]	A wireless communication receiver (20) comprises an antenna array (22)
3	and a joint sea	archer and channel estimator (24). Plural antenna elements of the array
4	provide respe	ctive plural signals (indicative of one or more arriving wavefronts) to the
5	joint searcher	and channel estimator. The joint searcher and channel estimator
6	essentially co	ncurrently considers the plural signals provided by the plural antennas for
7	determining b	oth a time of arrival and composite channel coefficient for each
8	wavefront. T	he joint searcher and channel estimator applies the channel coefficient and
9	the time of ar	rival to a detector which provides, e.g., a symbol estimate. Since it
10	contemporane	cously processes the signals from plural antennas over a sampling window
11	in order to de	termine both time of arrival and the channel coefficient, the joint searcher
12	and channel e	stimator (24) is considered a two dimensional unit. A first dimension is
13	with reference	e to a time index of the sampling window, i.e., a sampling window time
14	index. A seco	and dimension is a spatial dimension imparted by the spacing of the plural
15	antennas of th	e array. The spatial joint searcher and channel estimator may take
16	differing emb	odiments and have differing implementations. In one example,
17	illustrative en	abodiment the joint searcher and channel estimator includes a non-
18	parametric ty	pe correlator (e.g., a correlator which performs a Fast Fourier Transform
19	(FFT) calcula	tion). In another example, illustrative embodiment the joint searcher and
20	channel estim	ator utilizes a parametric approach